DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Arnold Schwarzenegger, Governor

Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017755 Address: 333 Burma Road **Date Inspected:** 29-Oct-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1100 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: John Pagliero **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG Section**

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joints 4E/5E LS-3, inside the OBG section: ABF welding personnel Hua Qiang Hwang (#2930) was setting up preheat equipment.
- 2) At weld joints 4E/5E LS-5 and 6, inside the OBG section: ABF welding personnel Xiiao Jian Wan (#9677) was setting up preheat equipment.
- 3)At weld joints 7E/8E-E-2, inside the OBG section: ABF welding personnel Song Tao Huang (#3794) was performing Shielded Metal Arc Welding (SMAW). QC Inspector Tony Sherwood was present and monitoring the work.
- 4) At various locations inside the East OBG sections: ABF welding personnel Darcel Jackson (#9967) and Eric Sparks (#3040) were grinding and/or using the SMAW process for production work on the round access plate inserts. QC Inspector John Pagliero was present and monitoring the work.

At weld joints 4E/5E LS-3, inside the OBG section this QA Inspector observed ABF welding personnel Hua

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

Qiang Hwang (#2930) was setting up the induction heating equipment to be used for preheating the groove welds. Welding was not observed at this location this date during this QA Inspectors' shift.

At weld joints 4E/5E LS-5 and 6, inside the OBG section this QA Inspector observed ABF welding personnel Xiiao Jian Wan (#9677) was setting up the induction heating equipment to be used for preheating the groove welds. Welding was not observed at this location this date during this QA Inspectors' shift.

At weld joints 7E/8E-E-2, inside the OBG section this QA Inspector observed ABF welding personnel Song Tao Huang (#3794) performing SMAW. This QA Inspector observed as QC Inspector Tony Sherwood verified the following welding parameters: 140 amperes using a 3.2 mm E7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-1040B Rev-1. This QA Inspector randomly observed QC Inspector Tony Sherwood monitoring the welding at this location.

At various locations inside the East OBG sections this QA Inspector observed ABF welding personnel Darcel Jackson (#9967) and Eric Sparks (#3040) grinding the bottom of the round access plate inserts. This QA Inspector observed grinding at 1E-PP 9.5-E3 #1 and 2E-PP 17-E3 #4. This QA Inspector randomly observed QC Inspector John Pagliero was present and monitoring the work.

Summary of Conversations:

As noted above and below. This QA Inspector had a conversation with Lead QA Inspector Bill Levell via phone and later with ABF welding personnel Danny Ieraci (#3232) regarding the preheat and post weld heating of the longitudinal stiffeners consisting of 485W material (LS-1 thru 6 and access plates as applicable). It was confirmed with both that local preheating couls be provided using equipment such as a torch for the butting / weld build up of the joint prior to joining the two members together in a groove weld. Prior to and after the start of the groove weld preheat would be maintained throughout welding until completed and for a minimum of 3 hours thereafter, using equipment such as an electrical induction heater blanket.

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Hager, Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer